

Programs for Pre-Dentistry, Pre-Medicine, Pre-Optometry, Pre-Physical Therapy, Pre-Veterinary, Pre-Pharmacy (Updated May 2019)

Below is the pre-admission course work required for acceptance into the various professional schools. Students interested in one of these areas must confer with an advisor for their area of interest, the two most common being Biology or Chemistry. Admission to professional schools almost always requires a four year degree, therefore your advisor should be a faculty member in the area in which you will major.

Pre-Dental Hygiene

Most HSU pre-dental hygiene students apply to and enter the University of Arkansas for Medical Sciences. The course requirements for application to this school are given below. Other dental hygiene associate programs could have additional or different requirements.

8 hrs Biology	Introduction to Biology or Zoology and Microbiology with labs
4 hrs Chemistry	General Chemistry
3 hrs Math	College Algebra
6 hrs English	English A and English B
3 hrs History	U.S. History to 1877 or U.S. History since 1877 or American National Government
3 hrs Speech	Oral Communication
3 hrs Psychology	Gen. Psychology
3 hrs Sociology	Introduction to Sociology
6 hrs Humanities	World Literature I or II, or Intro to Philosophy
12 hrs Electives	Six must be 3000-4000 level

Pre-Dentistry

Most HSU pre-dental students apply to and attend the University of Tennessee's College of Dentistry. The course requirements for application to this school are given below. Other dental schools could have additional or different requirements.

8 hrs Biology	General Zoology and General Botany with labs
20 hrs Chemistry	Univ. Chemistry I & II, Organic Chemistry I & II, and Biochemistry I
6 hrs English	English A and English B
8 hrs Physics	Gen. Physics I & II or Univ. Physics I & II with labs
4 to 4 hrs	Other biology: Histology, Microbiology, or Comparative Anatomy with labs

Recommended electives include Genetics, Comparative Anatomy, Developmental Biology, Cell Biology, Histology, Microbiology, Molecular Biology, Physiology, and Neurobiology.

Pre-Medical

Most HSU pre-medical students apply to and attend the University of Arkansas for Medical Sciences School of Medicine. The course requirements for application to this school are given below. Other medical schools could have additional or different requirements.

- Two semesters of Biology
- Three semesters of Chemistry (to include Organic Chemistry with lab, and Biochemistry)
- One semester of Genetics
- Two semesters of Physics
- Two semesters of English
- One semester of Statistics
- Two semesters of Social Sciences (General Psychology and Introduction to Sociology are strongly recommended)

Strongly recommended courses are in the area of Biology: General Zoology, Human Anatomy and Physiology, Histology, Cell Biology. It is imperative that students interested in this field consult regularly with their department pre-medial advisor.

Pre-Optometry

Most HSU pre-optometry students apply to and attend the Southern College of Optometry. The course requirements for application to this school are given below. Other optometry schools could have additional or different requirements.

12 hrs biology	General Zoology, General Botany and Microbiology with labs
20 hrs Chemistry	Univ. Chemistry I & II, Organic Chemistry I & II, and Biochemistry
6 hrs English	English A and English B
8 hrs Physics	Gen. Physics I & II or Univ. Physics I & II with labs
8 hrs Math	Calculus I and Statistics
3 hrs Psychology	General Psychology
6 hrs Social Science	Sociology, Psychology, History, Political Science, Philosophy, Geography, etc.

Pre-Physical Therapy

Most HSU pre-physical therapy students apply to and enter the physical therapy program at the University of Central Arkansas. The course requirements for application to this school are given below. Other physical therapy programs could have additional or different requirements.

16 hrs Biology	General Zoology, Human Anatomy and Physiology I & II, and one upper level animal-based course
8 hrs Chemistry	Univ. Chemistry I & II or Gen. Chemistry and Gen. Organic & Biochemistry with labs
8 hrs Physics	Gen. Physics I & II with labs
3 hrs Psychology	Gen. Psychology
3 hrs Statistics	Statistics or Experimental Statistics or Statistical Methods
1 hr	Medical Terminology

Pre-Veterinary

Most HSU pre-veterinary students apply to and attend the Louisiana State University's School of Veterinary Medicine. The course requirements for application to this school are given below. Other veterinary schools could have additional or different requirements.

12 hrs Biology	General Zoology, Microbiology and an upper level biology
20 hrs Chemistry	Univ. Chemistry I & II, Organic Chemistry I & II, and Biochemistry
6 hrs English	English A and English B
8 hrs Physics	Gen. Physics I & II or Univ. Physics I & II
6 hrs Math	College Algebra or Pre-Calculus, and Trigonometry

Pre-Pharmacy

Below are the courses required for acceptance into the College of Pharmacy at the University of Arkansas for Medical Sciences. Other pharmacy schools could have additional or different requirements. UAMS requires a total of 69 hours. Humanities electives (humanities, literature, social sciences, history) are taken to complete the required 61 hours. Consult with a pre-pharmacy advisor for options and curriculum requirements for other pharmacy schools. The Biology and Chemistry department and the UAMS Pharmacy School recommend that students earn their four year degree before entering pharmacy school. Acceptance into a professional school is not guaranteed therefore it is wise to work toward a four year degree as you take these courses.

Core Courses

3 hrs Math	MTH 1243 College Algebra
16 hrs Chemistry	CHM 1014/CHM 1024 University Chemistry I & II and labs CHM 3063/CHM 3051 Organic Chemistry I and lab and CHM 3073/CHM 3131 Organic Chemistry II and lab
12 hrs Biology	BIO 2114 General Zoology and lab BIO 2014 General Botany and lab BIO 2094 Microbiology and lab

Non-core Courses

9 hrs English	ENG 1463/ENG 1473 Freshman English A & B, and/or speech, literature courses
3 hrs Business	ECO 2013 Microeconomics Or ECO 2023 Macroeconomics Or ACC 2013 Principles of Accounting
3 hrs Statistics	STA1313 Statistical Reasoning or STA2323 Statistical Methods
3 hrs Oral Com	COM2013 Oral Communications
3 hrs Psychology	PSY1013 General Psychology
3 hrs Humanities	Choose from world cultures or history, anthropology, sociology, or foreign language
9 hrs recommend Electives:	
	CHM 2084 Quantitative Analysis
	MTH 1294 Calculus I
	MTH 2323 Statistical Methods
	PHY 2034 General Physics I and lab
	ENG 2133 Critical Thinking
	BIO 3314 Animal Physiology
	BIO 3054 Genetics and lab
	BIO 4214 Cell Biology and lab
	CHM 4173 Medicinal Chemistry
	CHM 4283 Biochemistry I
	PHI 2133 Logic

Additional Biology and Chemistry electives are recommended for all pre-professional students. The number and names of these biology and chemistry courses depend upon the student's major. Most students who choose one of these professions are either biology or chemistry majors. It would be best for a student to seek advice from the department in which they intend to major.